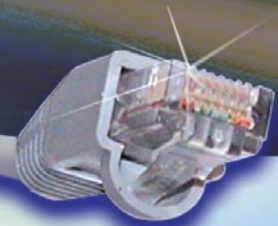




## Unifying Optical Storage across the net



### MSM 150 Product Datasheet

StorageQuest Multi-Services Storage Manager (MSM) 150 appliance combines Web technologies, optical storage management and standards based networking services in a single tightly integrated system. The MSM 150 enables companies to unify optical storage based archival systems with their current storage systems through existing network infrastructures. The MSM 150 provides open system standards with easy-to-deploy capabilities that ensure best-in-class archival storage implementations that are "Future Proofed" with the flexibility and scalability to meet changing business requirements and maximize return on investment.

#### Open Systems

StorageQuest's Open approach to network based archival storage encompasses a wide range of innovative StorageQuest software and application expertise, designed to help businesses worldwide address the major challenges of explosive information growth and spiraling costs by more effectively storing, archiving and protecting their critical data.

The MSM150 delivers a totally OPEN solution to archival storage requirements eliminating proprietary formats, file systems and interfaces. Any business

application can now take advantage of the security and permanency of optical storage for the archiving of data to meet compliancy requirements such as; SEC 17a-4, Sarbanes-Oxley and HIPAA, to name a few. Application servers can easily store and retrieve archival data through industry standards based networking protocols and all archived data is easily transportable to all major operating system including: Microsoft Windows, Linux, UNIX and MAC OS X through the use of the industry standard file format UDF (Universal Disc Format) supported natively by these operating systems.



#### Optical; The Clear Choice

Optical storage solutions provide TRUE WORM (Write Once Read Many) capability as well as transportability of the archived data for offsite storage combined with the very long media life of 50 – 100 years without any maintenance of the media (unlike magnetic tape) positions a networked attached optical storage solution as the ideal choice for companies requiring compliant, long term, secure, open, transportable and True WORM based archival solution.



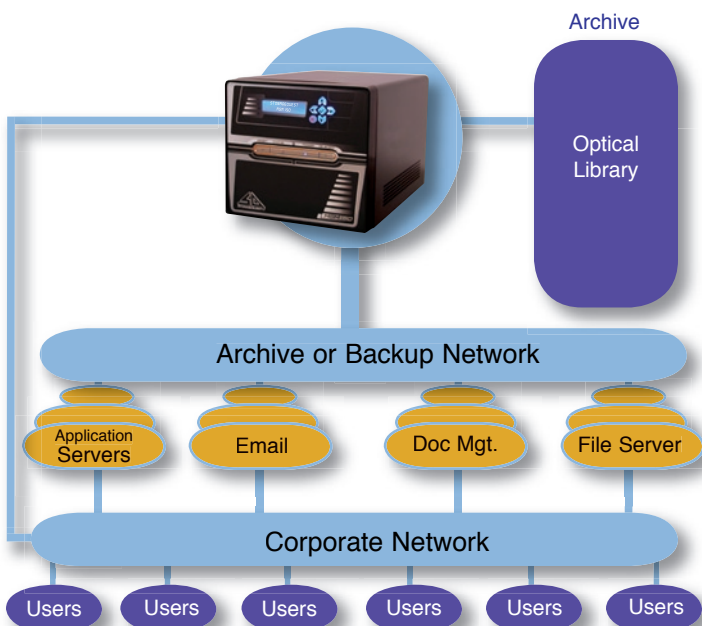
## Making Optical Storage Simple & Open

Open Systems was the key element in designing the MSM 150 as a “Future-Proof” solution, which is critical for the successful implementation for any archival system. When you consider that information stored in an archival system will be required from several to upwards of 20 years the archival system must be based on industry standards which will enable information to be read on any current or future operating system natively.

Until now deployment of optical storage libraries has required very complicated and expensive software connectivity products plus a dedicated server and operating system for the software to run on to support the optical library. Adding to the total cost of ownership was the requirements of highly skilled IT personnel trained to support and maintain the connectivity software and its associated server platform.

The MSM 150 enables any optical library to be easily connected and managed through a standard network interface; entry level system administration personnel can install, configure and manage it easily, so there is no costly IT support required.

The MSM 150 virtualizes any optical library into one or more network shares or mount points each being accessible on the network by any application. For example, the MSM 150 can be configured to allocate an individual optical disc in the library to a specific user, or it can assign a group of discs in the library to a specific user group or class of data or application. A storage administrator can easily allocate discs in a library to meet the needs of the user environment at any time simplifying storage provisioning of archival systems.



## Features

- No Server or Software required
- Optical library set-up in 30 minutes or less
- Configuration Wizard GUI
- Support for all Major Optical Libraries
- Supports all Operating Systems for networking, (Windows, Linux, UNIX and MAC OS X)
- Network Protocols supported; NFS, TCP/IP, CIFS, DHCP, NTP, HTTP & FTP
- Optical Media formats supported; Rewritable & WORM; Blu-Ray, DVD, MO, PDD, UDO
- Universal Disk Format (UDF) supported for readability on: Windows, Linux, UNIX and MAC OS X Systems
- Integrated Performance RAID Cache
- Ultra-160 SCSI & FireWire 400 Interfaces
- No client side software or licenses required
- Web-based Graphical User Interface
- Dynamic Media Grouping – Virtualizes optical media into one or more network shares - Individual media from a group can be read independently outside the group
- Automatic media bulk loading
- Offline tracking of library media
- Remote Replication Manager option available for Off-site disaster recovery and backup
- One year warranty



# Management Features

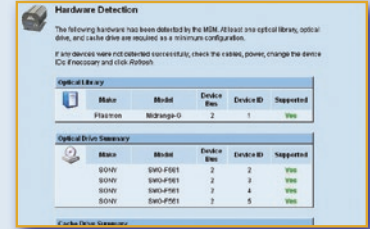
## Storage Administration and Management Features

The MSM150 Graphical User Interface (GUI) enables administrators to easily configure the core functionality required to cost-effectively manage any optical storage archival application. The Administrative features support both local and remote administration through any Web-browser.



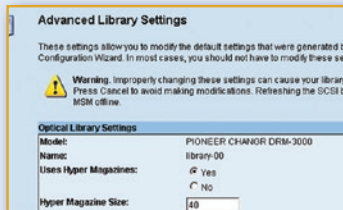
## Configuration Wizard

The MSM 150 configuration Wizard is an automated method for the configuration and setup of any optical library. Through its discovery process it identifies, configures and presents the library and its associated drives in a graphical manner. All default settings can be easily changed at any time by the administrator to suit application requirements.



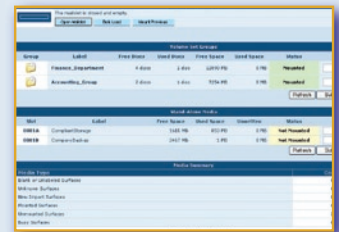
## Advanced Configuration Tools

Each screen has an advanced button which enables storage and network administrators to easily drill down into the lower levels of the devices and system settings. This allows the optical library to be specifically configured to operate as an archive resource in their environment. Configuration changes can be made quickly and easily at anytime to accommodate application or infrastructure requirements.



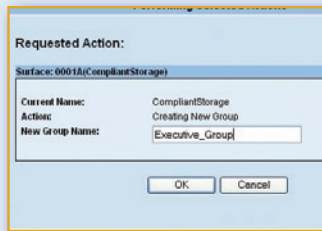
## Media Management

The MSM 150 provides functionality that enables administrators to easily configure the core functionality required to cost-effectively manage any optical storage archival application. Administration features support both local and remote administration.



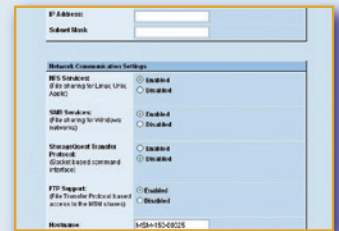
## Storage Virtualization

The MSM 150 enables storage virtualization of an optical library through its media grouping function. Media grouping builds logical volumes out of many individual optical discs, where the capacity of these volumes is equal to the sum of all the optical discs in the volume. Volume capacity can be increased or decreased at any time by an administrator thus enabling a straight forward approach to archival storage provisioning.



## Simple Network Integration

The MSM 150 provides simple network configuration for integration into most standard network infrastructures supporting 10/100/1000 base-T interface and protocols including: Windows CIFS, NFS, TCP/IP, FTP, NTP, HTTP, DHCP and. By allowing administrators to define the MSM 150s hostname, workgroup, DNS server, default gateway and domain name, it will seamlessly appear as any other networked attached server, ensuring complete transparency for the end user.



## Security

The MSM 150 provides several levels of security which protect your optical storage resources from unauthorized access. Administrators have the ability to allow read-only or read-write access to each media group, on a per user basis. This level of control ensures that each user only has the appropriate access and control that they require. In addition to securing access to the data in the library, the web administration tools can be secured to ensure that administrators must first supply proper credentials, before being granted access.



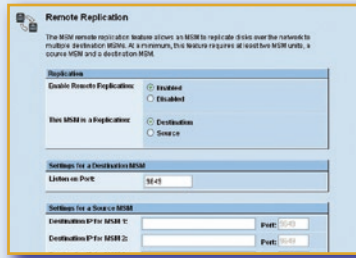
## Advanced Cache Management

The MSM 150 has two-(2) integrated SATA hard disk cache drives which can be configured for RAID-1 or individual disks (JBOD) through the Wizard. The cache RAID greatly improves the read and write performance of optical libraries which is especially important when configured on a high speed storage network. The cache also supports Offline Media Tracking whereby any media exported from the library is identified and stored for rapid metadata retrieval at anytime. The cache is also used to stage data for disc-at-once writing which produces highly compatible media which can be natively be read on any Windows, UNIX, Linux or MAC OS X system.



## Remote Replication Option

StorageQuest has taken the first steps toward offering users an optional integrated replication solution for optical libraries through its Remote Replication Manager™. By utilizing existing IP networks, the MSM150 appliance enables a complete remote copy of critical data to be maintained off-site at a fraction of the cost of other solutions. The MSM150 is optimized to perform well on low-bandwidth network segments, which together with the operational simplicity of an appliance, enables Small and Medium Business (SMB) office locations to implement continuity plans as an extension of their backups. This is achieved by protecting their primary data centers through the concurrent replication of the primary data center's archived data to a remote site.







## Extensive Help Facilities

The MSM 150 provides an extensive help facility on every screen, including content specific hot links to reference information providing quick on-line support.



## MSM 150 Characteristics

<b>Appliance Operating System</b>	LINUX
<b>Appliance Processor</b>	Intel Pentium-4
<b>Appliance OS &amp; System Backup Medium</b>	Compact Flash Card (internal)
<b>Integrated Performance Cache</b>	Dual SATA Drives: 80GB, 250GB & 400GB RAID-1 (Default) Hardware Based & JBOD
<b>Dimensions</b>	12.2"L x 7.87" W x 7.28" H (310mm L x 200mm W x 185mm H)
<b>Weight</b>	Net : 7.92lbs. (3.6Kg) Gross : 11.44lbs.(5.2Kg)
<b>Environmental</b>	Relative humidity: 10 - 95% non-condensing Vibration: 5 - 2000 Hz Shock: 10 G (not with SODIMM) Operating Temp.: 0°C to +60°C
<b>Power Requirements</b>	AC Power 250 Watts AC Voltage 100 - 240 AC Frequency 50-60Hz AC Current Max @100V 6 A AC Current Max @240V 3 A
<b>Country of Manufacture</b>	CANADA

<b>Network Interface</b>	10/100/1000 BaseT
<b>Network Protocols Supported</b>	NFS, TCP/IP, Microsoft CIFS, NTP, HTTP, DHCP & FTP
<b>Media File Formats</b>	UDF (Universal Data Format), ISO 9660
<b>Supported Operating Systems</b>	Windows, UNIX, Linux, MAC OS X
<b>Supported Media Formats</b>	DVD-ROM, DVD-R, DVD-RW, DVD+RW, CD-ROM, CD-R, CD-RW, MO, CCW, WORM, UDO, PDD, Blu-Ray
<b>Optical Library Interfaces</b>	Ultra-160 SCSI & FireWire 400 (1394)
<b>Supported Libraries</b>	ASACA, HP, IBM, JVC, Kubota, NSM, Pioneer, Plasmon, PowerFile, SONY
<b>Metadata Management</b>	Network access to metadata for backup & recovery
<b>Appliance Management</b>	Web Based Suite & Front Panel LCD
<b>Certifications</b>	   

Bauart Geprüft – Type Approved D33032  
 RU – US - Level 3 E239511 PW02 N2801  
 FCC – For home or office use CE UC – OCP – 0004



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